AMENDMENTS TO THE CLAIMS

The claims are amended, as follows.

1. (Currently amended) A method of developing actual resources without alteration into a collection of virtual resources customized to a particular audience, said method comprising:

constructing at least one virtual resource independent of an actual resource;

connecting the actual resource to the at least one virtual resource;

retrieving the at least one virtual resource; and

extracting at least one descriptor from said at least one retrieved virtual resource,

wherein said virtual resource comprises a resource utilized at a logic authoring time and said actual resource comprises a resource utilized at a runtime.

2. (Original) The method of claim 1, wherein said connecting comprises directly mapping the at least one actual resource to the at least one virtual resource.

3. (Original) The method of claim 1, wherein the constructing comprises at least one of: renaming a method; hiding a method; composing a method; renaming an attribute; hiding an attribute; composing an attribute; assigning to at least one domain; designating as a collection; assigning to at least one validator; assigning a description; designating as at least one of ready and not ready; and assigning a last modified date and time.

4. (Previously presented) The method of claim 1, wherein said at least one virtual resource comprises a plurality of virtual resources and said virtual resources are connected to each other through a relationship carrying semantic that can be leveraged by a consumer of resources, said method further comprising:

constructing at least one virtual relationship between at least two virtual resources;

coupling at least one actual relationship implementor to at least one virtual relationship;

performing at least one retrieval of a virtual relationship; and

extracting at least one descriptor from at least one retrieved virtual relationship.

5. (Original) The method of claim 4, wherein said coupling comprises:

directly mapping said at least one actual relationship implementor to said at least one virtual relationship.

6. (Previously presented) The method of claim 4, wherein the relationship constructing comprises at least one of:

assigning a root virtual resource name;

assigning a target virtual resource name;

assigning a relationship name;

assigning a relationship type;

assigning a description;

assigning a target instance naming scheme;

designating as at least one of ready and not ready; and

assigning a last modified date and time.

7. (Original) The method of claim 4, wherein the retrieving comprises locating virtual relationships by at least one of:

a domain;

a name;

a root;

a type; and

a target.

8. (Previously presented) The method of claim 1, wherein virtual resources are connected to each other, said method further comprising:

constructing at least one virtual relationship between at least two virtual resources;

coupling at least one actual relationship implementor to at least one virtual relationship;

performing at least one retrieval of a virtual relationship; and

extracting at least one descriptor from at least one retrieved virtual relationship.

9. (Original) The method of claim 8, wherein said coupling comprises:

directly mapping said at least one actual relationship implementor to said at least one virtual relationship.

10. (Previously presented) The method of claim 8, wherein the relationship constructing comprises at least one of:

assigning a root virtual resource name; assigning a target virtual resource name;

assigning a relationship name;

assigning a relationship type;

assigning a description;

assigning a target instance naming scheme;

designating as at least one of ready and not ready; and

assigning a last modified date and time.

11. (Original) The method of claim 1, wherein the retrieving comprises locating virtual resources by at least one of:

a domain;

a name; and

a relationship.

12. (Previously presented) The method of claim 8, wherein the retrieving comprises locating virtual relationships by at least one of:

a domain;

a name;

a root;

a type; and

a target.

13. (Previously presented) The method of claim 2, wherein descriptor validator information is employed to limit actual resource usage.

14. (Currently amended) A system for developing actual resources without alteration into a collection of virtual resources customized to a particular audience, said system comprising:

means for constructing at least one virtual resource independent of at least one actual resource;

means for connecting at least one actual resource to at least one virtual resource;

means for retrieving said at least one virtual resource; and

means for extracting at least one descriptor from said at least one retrieved virtual resource,

wherein said virtual resource comprises a resource utilized at a logic authoring time and said actual resource comprises a resource utilized at a runtime.

15. (Original) The system of claim 14, wherein said means for connecting comprises means for directly mapping the at least one actual resource to the at least one virtual resource.

16. (Original) The system of claim 14, wherein the means for constructing performs at least one of:

renaming a method;

hiding a method;

composing a method;

renaming an attribute;

hiding an attribute;

composing an attribute;

assigning to at least one domain;

designating as a collection;

assigning to at least one validator;

assigning a description;

designating as at least one of ready and not ready; and

assigning a last modified date and time.

17. (Previously presented) The system of claim 14, wherein virtual resources are connected to each other through a relationship carrying semantic that can be leveraged by a consumer of resources, comprising:

means for constructing at least one virtual relationship between at least two virtual resources;

means for coupling at least one actual relationship implementor to at least one virtual relationship;

means for performing at least one retrieval of a virtual relationship; and

means for extracting at least one descriptor from at least one retrieved virtual relationship.

18. (Original) The system of claim 17, wherein said means for coupling comprises:

means for directly mapping said at least one actual relationship implementor to said at least one virtual relationship.

19. (Previously presented) The system of claim 17, wherein the means for constructing at least one virtual relationship performs at least one of:

assigning a root virtual resource name;

assigning a target virtual resource name;

assigning a relationship name;

assigning a relationship type;

assigning a description;

assigning a target instance naming scheme;

designating as at least one of ready and not ready; and

assigning a last modified date and time.

20. (Original) The system of claim 14, wherein the means for retrieving performs locating virtual relationships by at least one of:

a domain;

a name;

a root;

a type; and

a target.

21. (Previously presented) The system of claim 14, wherein virtual resources are connected to each other, said system further comprising:

means for constructing at least one virtual relationship between at least two virtual resources;

means for coupling at least one actual relationship implementor to at least one virtual relationship;

means for performing as least one retrieval of a virtual relationship; and

means for extracting at least one descriptor from at least one retrieved virtual relationship.

22. (Original) The system of claim 21, wherein said means for coupling comprises:

means for directly mapping said at least one actual relationship implementor to said at least one virtual relationship.

23. (Previously presented) The system of claim 21, wherein the means for constructing a relationship comprises at least one of:

means for assigning a root virtual resource name;

means for assigning a target virtual resource name;

means for assigning a relationship name;

means for assigning a relationship type;

means for assigning a description;

means for assigning a target instance naming scheme;

means for designating as at least one of ready and not ready; and

means for assigning a last modified date and time.

24. (Original) The system of claim 21, wherein the means for retrieving comprises locating virtual resources by at least one of:

a domain;

a name; and

a relationship.

25. (Original) The system of claim 21, wherein the means for retrieving comprises locating virtual relationships by at least one of:

a domain;

a name;

a root; and

a target.

26. (Previously presented) The system of claim 15, wherein descriptor validator information is employed to limit actual resource usage.

27. (Currently amended) A service to manage descriptions of actual resources in a system comprised of a plurality of actual resources, said service comprising:

defining at least one virtual domain to satisfy a user-requirements analysis; and

defining at least one virtual resource describing as least one actual resource within the at least one virtual domain to satisfy the user-requirements analysis,

wherein said virtual resource comprises a resource utilized at a logic authoring time and said actual resource comprises a resource utilized at a runtime.

28. (Previously presented) The service of claim 27, further comprising:

analyzing a requirement for actual resource usage, to provide said user requirements analysis.

29. (Original) The service of claim 27, further comprising:

defining at least one virtual relationship between at least two virtual resources.

30. (Previously presented) The service of claim 29, wherein at least one of a virtual resource and a virtual relationship is utilized to create an application program.

31. (Currently amended) A method of deploying computing infrastructure in which computer-readable code is integrated into a computing system, such that said code and said computing system combine to perform a method of developing said actual resources without alteration into a collection of virtual resources customized to a particular audience, said method comprising:

constructing at least one virtual resource independent of said actual resources;

connecting at least one actual resource to at least one virtual resource;

performing at least one retrieval of a virtual resource; and

extracting at least one descriptor from said at least one retrieved virtual resource,

wherein said virtual resource comprises a resource utilized at a logic authoring time and said actual resource comprises a resource utilized at a runtime.

32. (Currently amended) A tangible computer-readable storage medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform

a method of developing said actual resources without alteration into a collection of virtual resources customized to a particular audience, said method comprising:

constructing at least one virtual resource independent of said actual resources;

connecting at least one of said actual resources to said at least one virtual resource;

performing at least one retrieval of said virtual resource; and

extracting at least one descriptor from said at least one retrieved virtual resource,

wherein said virtual resource comprises a resource utilized at a logic authoring time and said actual resource comprises a resource utilized at a runtime.

33. (Currently amended) A method of developing actual resources without alteration into a collection of virtual resources customized to a particular audience, said method comprising:

constructing at least one virtual resource independent of an actual resource; and

providing in the at least one virtual resource a structured meta-data layer which contains semantic information for leveraging by a consumer of the virtual resources,

wherein said virtual resource comprises a resource utilized at a logic authoring time and said actual resource comprises a resource utilized at a runtime.

34. (Original) The method of claim 33, wherein said semantic information includes relationships with agreed upon semantics including any of "related-to", "contains", and "is-conflicting-with", between entities.

35. (Previously presented) The method of claim 33, wherein said semantic information allows any of making new resource manipulation operations available to logic authoring tools and serving as an input to a conflict detection tool.

36. (Original) The method of claim 1, further comprising:

creating at least one virtual resource instance;

assigning an identity to the at least one virtual resource instance; and

associating the at least one virtual resource instance with one virtual resource.

37. (Original) The method of claim 4, further comprising:

creating at least one virtual relationship instance;

assigning an identity to the at least one virtual relationship instance; and

associating the at least one virtual relationship instance with one virtual relationship.